APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,890	11/27/2000	Henry F. Lada	COMP.0130 (P00-3123)	6089

7590	08/25/2004	**EXAMINER**

Hewlett-Packard Company
Intellectual Property Administration
Legal Department, M/S 35
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Ft. Collins, CO 80527-2400

VU, TRISHA U

ART UNIT	PAPER NUMBER
2112	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/722,890	LADA ET AL.
	Examiner	Art Unit
	Trisha U. Vu	2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

> A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
> THE MAILING DATE OF THIS COMMUNICATION.
> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
>   after SIX (6) MONTHS from the mailing date of this communication.
> - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
> - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
> - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
> - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
>   earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _10 May 2004_ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-31_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-31_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _27 November 2000_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1.   Claims 1-31 are presented for examination.

Response to Arguments

In view of the Appeal Brief filed on 05-10-2004, PROSECUTION IS HEREBY

REOPENED. There are new issues that need to be resolved before going to the Board of Patent

Appeals and Interferences as set forth below.

To avoid abandonment of the application, appellant must exercise one of the following

two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37

CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a

supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or

other evidence are permitted. See 37 CFR 1.193(b)(2).

Drawings

2.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show every

feature of the invention specified in the claims. Therefore:

-       *"third memory device"* (on the main unit as claimed in claims 1 and 15)

        must be shown or the feature(s) canceled from the claim(s). No new

        matter should be entered.

- "*memory*" (on the main unit as claimed in claims 20-21) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3.   Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form:

"*the first memory device and the second memory device comprise **the same***

memory device" fails to further limit the subject matter "*the first memory device and the*

second memory device".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

4.   Claims 1, 3-8, 11, and 24-28 are rejected under 35 U.S.C. 102(e) as being anticipated by

Harari et al (6,266,724) (herein after Harari).

As to claim 1, Harari teaches a method of implementing a personal digital

assistant comprising a main unit (host system 200 and/or mother card 10) and an option

pack (daughter card 20) (Fig. 1) comprising the acts of: (a) coupling the option pack with

the main unit (Fig. 1), the option pack comprising a first memory device (memory in the daughter card) configured to store one or more applications and drivers associated with the one or more applications (col. 10, lines 37-47 and col. 13, lines 10-20), and a second memory device (part of the memory in the daughter card) configured to store identification data (configuration and device specific information) (col. 8, lines 51-55), the main unit comprising a device manager (comprehensive controller) configured to receive the identification data from the second memory device (col. 8, lines 38-55), a power supply (col. 7, lines 55-61), and a third memory device (ROM 52) (col. 7, lines 46-61); (b) transmitting the identification data from the second memory device to the device manager (col. 8, lines 51-55); and (c) downloading the one or more applications, as well as drivers associated with the one or more applications, form the option pack to the main unit (col. 10, lines 37-47 and col. 13, lines 10-20).

As to claim 3, Harari further teaches the first memory device and the second memory device comprise the same memory device (simple ROM/RAM card) (col. 8, lines 38-55).

As to claim 4, Harari further teaches the device manager comprises a device driver (by processor 50 through interface 56) that controls the interaction between the main unit and the option pack (col. 7, lines 46-61 and Fig. 3).

As to claim 5, Harari further teaches the first memory device comprises a flash memory or a read only memory (at least ROM) (col. 8, lines 38-55).

As to claim 6, Harari further teaches the second memory device comprise an electrically erasable programmable read only memory (EEPROM) (col. 7, lines 31-34).

As to claim 7, Harari further teaches the identification data comprises option pack feature information (device specific information), option pack configuration (configuration information), and option pack identification (identifying data) (col. 8, lines 51-55 and col. 5, lines 37-53).

As to claim 8, Harari further teaches the identification data comprises option pack identification information (identifying data), control information (configuration, driver information, ...) (col. 8, lines 51-55 and col. 5, lines 37-53), a driver table (information for decoding algorithms, encryption/decryption key, software/hardware drivers) (col. 13, lines 10-20), and option pack configuration (configuration data) (col. 4, lines 33-46).

As to claim 11, Harari further teaches act (b) comprises the act of transmitting the identification data through a serial interface (col. 11, lines 60-67 and col. 12, lines 1-9).

As to claim 24, Harari teaches an option pack interface comprising: a memory device (memory in the daughter card) comprising a memory data structure configured to store identification data (configuration and device specific information) (col. 8, lines 51-55); and at least one data sector defined within the memory data structure (part of the memory in the daughter card), wherein the at least one data sector comprises one or more applications, as well as drivers associated with the one or more applications (col. 10, lines 37-47 and col. 13, lines 10-20), and wherein the one or more applications and drivers are configured to be downloaded from the memory device to a main unit (col. 10, lines 37-47 and col. 13, lines 10-20).

As to claim 25, Harari further teaches the at least one data sector comprises option pack identification data (identifying data) (col. 8, lines 51-55 and col. 5, lines 37-53).

As to claim 26, Harari further teaches the at least one data sector comprises driver control information (configuration, driver information, ...) (col. 8, lines 51-55 and col. 5, lines 37-53).

As to claim 27, Harari further teaches the at least one data sector comprises a driver table (information for decoding algorithms, encryption/decryption key, software/hardware drivers) (col. 13, lines 10-20).

As to claim 28, Harari further teaches the at least one data sector comprises option pack configuration information (configuration data) (col. 4, lines 33-46).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harari et al (6,266,724) (herein after Harari) as applied to claim 1 above, and further in view of Bailey et al. (6,134,612) (herein after Bailey).

As to claim 2, Harari does not explicitly disclose coupling the option pack with the main unit via a 100-pin connector. Bailey teaches 100-pin connector (Fig. 82). It would have been obvious to one of ordinary skill in the art to implement 100-pin connector as taught by Bailey in the system of Harari to allow more sufficient signal conductors.

6.   Claims 9 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harari et

al (6,266,724) (herein after Harari), and further in view of Garney (5,538,436).

        As to claim 9, the argument above for claim 1 applies. However, Harari does not

explicitly disclose the identification information comprises a bootstrap program. Garney

teaches removable cards with bootstrap program (col. 1, lines 26-32). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to include

bootstrap program as taught by Garney in the system of Harari to load in a desired larger

program (e.g. operating system).

        As to claim 30, the argument above for claim 24 applies. However, Harari does

not explicitly disclose the at least one data sector comprises a bootstrap program. Garney

teaches removable cards with bootstrap program (col. 1, lines 26-32). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to include

bootstrap program as taught by Garney in the system of Harari to load in a desired larger

program (e.g. operating system).

7.   Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harari et al

(6,266,724) (herein after Harari), and further in view of Miller (6,199,168).

        As to claims 12 and 13, the argument above for claim 11 applies. Harari further

teaches act (b) comprises the acts of: (a) enabling the serial interface; (b) enabling the

power supply to transmit power to the option pack; and (c) transmitting the identification

data from the second memory device to the device manager. However, Harari does not

explicitly disclose the option pack only draws a minimal amount of current which is 5.0-15.0 mA from the main unit. Miller teaches transmitting the identification data wherein the card draws 5.0-15.0 mA (around 2 to 20 milliamps) (col. 3, lines 8-17). It would have been obvious to one of ordinary skill in the art to implement transmitting the identification data wherein the option pack draws 5.0-15.0 mA of current from the main unit as suggested by Miller in the system of Harari to conserve power wherein the card can still turn on and check the card's status (col. 3, lines 13-17).

As to claim 14, the argument above for claim 1 applies. However Harari does not explicitly disclose determining whether the power supply in the main unit has enough power to activate the option pack fully. Miller teaches checking whether the main unit is capable of supplying power to the PC card (col. 4, lines 41-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include determining whether the power supply in the main unit has enough power to activate the option pack fully as taught by Miller in the system of Harari to ensure that the whole system will have enough power to operate after receiving the card.

8.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harari et al (6,266,724) (herein after Harari) as applied to claim 1 above, and further in view of Kane et al. (5,652,832) (herein after Kane).

As to claim 15, Harari does not explicitly teach determining whether the third memory device has enough memory capacity to receive the applications and associated drivers information. Kane teaches checking that there is enough memory allocated in the

main unit in order for the card to be recognized and configured (col. 14, lines 45-48). It

would have been obvious to one of ordinary skill in the art at the time the invention was

made to include checking if there is enough memory allocated in the main unit as taught

by Kane in the system of Harari to prevent data overrun.

9.   Claim 10, 16, 29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Harari et al (6,266,724) (herein after Harari), and further in view of Petty (6,389,486).

As to claim 10, the argument above for claim 1 applies. However, Harari does

not explicitly disclose the identification information comprises original equipment

manufacturer information. Petty teaches identification information comprises original

equipment manufacturer information (manufacturer's name and various other types of

information) (col. 4, lines 34-38). It would have been obvious to one of ordinary skill in

the art at the time the invention was made to include original equipment manufacturer

information as taught by Petty in the system of Harari to better recognize and configure

the card.

As to claim 16, the argument above for claim 2 applies. However, Harari does

not explicitly disclose the second memory comprises location and identification

information of the applications and drivers on the option pack. Petty teaches the card

comprises location (linked list CIS) and identification information of the card's functions

available on the option pack (descriptions of card's function) (col. 4, lines 39-46). It

would have been obvious to one of ordinary skill in the art at the time the invention was

made to include location and identification information of the card's functions (e.g.

applications, drivers) as taught by Petty in the system of Harari to allow the hosting device to gain an understanding of the capabilities of the card hosted thereby (col. 4, lines 39-46).

As to claim 29, the argument above for claim 28 applies. However, Harari does not explicitly disclose the option pack configuration information comprises information correlating to battery capacity of the option pack. Petty teaches configuration information comprises information correlating to battery capacity of the option pack (col. 4, lines 42-46 and col. 2, lines 1-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include battery capacity information as taught by Petty in the system of Harari so that the main unit can better manage/control the power of the whole system.

As to claim 31, the argument above for claim 24 applies. However, Harari does not explicitly disclose at least one data sector comprises original equipment manufacturer information. Petty teaches card comprising original equipment manufacturer information (manufacturer's name and various other types of information) (col. 4, lines 34-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include original equipment manufacturer information as taught by Petty in the system of Harari to better recognize and configure the card.

10.   Claims 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Postman et al. (5,664,231) (herein after Postman) in view of Harari et al (6,266,724) (herein after Harari).

As to claim 17, Postman teaches a method of interfacing an option pack (PC card) with a main unit of a personal digital assistant (PDA), comprising the acts of: (a) determining whether there is an option pack coupled to the main unit (automatically apply power to the input device when the PC Card is inserted) (col. 26, lines 48-48-50); (b) providing an interrupt signal from the option pack to the main unit; (c) interrupting the processing of the main unit; (d) notifying the main unit that the option pack is present (col. 26, lines 50-54 and col. 7, lines 1-5); and (e) transmitting identification information (Configuration Option/Card Configuration/Status Register) from the option pack to the main unit (col. 8, lines 43-54). However, Postman does not explicitly disclose copying one or more applications, as well as drivers associated with the one or more applications, from the option pack to the main unit. Harari teaches option pack having applications and drivers associated with the applications, and teaches copying the applications and drivers from the option pack to the main unit (col. 10, lines 37-47 and col. 13, lines 10-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement including applications and drivers associated with the applications in the option pack, and copying the applications and drivers from the option pack to the main unit as taught by Harari in the system of Postman to add different specific functions (programs) to the system at any time.

As to claim 22, Postman further teaches interrupt the main unit with one or more detect signals (col. 26, lines 50-54 and col. 7, lines 1-5).

11.   Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Postman et

al. (5,664,231) (herein after Postman) in view of Harari et al (6,266,724) (herein after Harari) as

applied to claim 17 above, and further in view of De Nicola (6,308,240).

         As to claim 18, Postman and Harari do not explicitly teach determining whether

the main unit has enough power to enable the option pack. De Nicola teaches

determining whether the main unit has enough power to enable the option pack (col. 1,

lines 64-67 and col. 2, lines 1-3). It would have been obvious to one of ordinary skill in

the art at the time the invention was made to include determining whether the main unit

has enough power to enable the option pack as taught by De Nicola in the system of

Postman and Harari to prevent power's shortness of the main unit and conserve power for

the main unit.

         As to claim 19, De Nicola further teaches notifying a user as to whether the main

unit has enough power to enable the option pack (col. 2, lines 3-8).

12.   Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Postman et

al. (5,664,231) (herein after Postman) in view of Harari et al (6,266,724) (herein after Harari) as

applied to claim 17 above, and further in view of Kane et al. (5,652,832) (herein after Kane).

         As to claim 20, Postman and Harari do not explicitly teach determining whether

the main unit has enough memory to store the information from the option pack. Kane

teaches checking that there is enough memory allocated in the main unit in order for the

card to be recognized and configured (col. 14, lines 45-48). It would have been obvious

to one of ordinary skill in the art at the time the invention was made to include checking

if there is enough memory allocated in the main unit as taught by Kane in the system of

Postman and Harari to prevent data overrun.

As to claim 21, Kane further teaches notifying a user as to whether the main unit

has enough memory to store the information (col. 2, lines 18-20).

13.   Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Postman et al.

(5,664,231) (herein after Postman) in view of Harari et al (6,266,724) (herein after Harari) as

applied to claim 22 above, and further in view of Cepulis (6,055,596).

As to claim 23, Postman and Harari do not explicitly teach the detect signals

initiate a timer to allow the detect signals to debounce. Cepulis teaches a timer to

debounce a signal (col. 74, lines 21-28). It would have been obvious to include a timer to

debounce a signal as taught by Cepulis in the system of Postman and Harari to eliminate
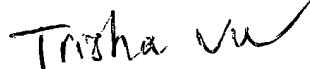
false triggers due to e.g. mechanical vibrations.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Trisha U. Vu whose telephone number is 703-305-5959. The

examiner can normally be reached on Mon-Thur and alternate Fri from 7:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mark Rinehart can be reached on 703-305-4815. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.
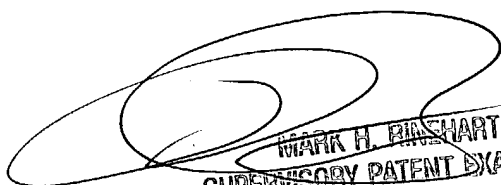
Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Trisha U. Vu
Examiner
Art Unit 2112

uv

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